

Appl. No. 10/519,604  
Amendment and/or Response  
Reply to Office Action of September 14, 2006

Page 2 of 6

RECEIVED  
CENTRAL FAX CENTER

DEC 12 2006

**Amendments to the Claims:**

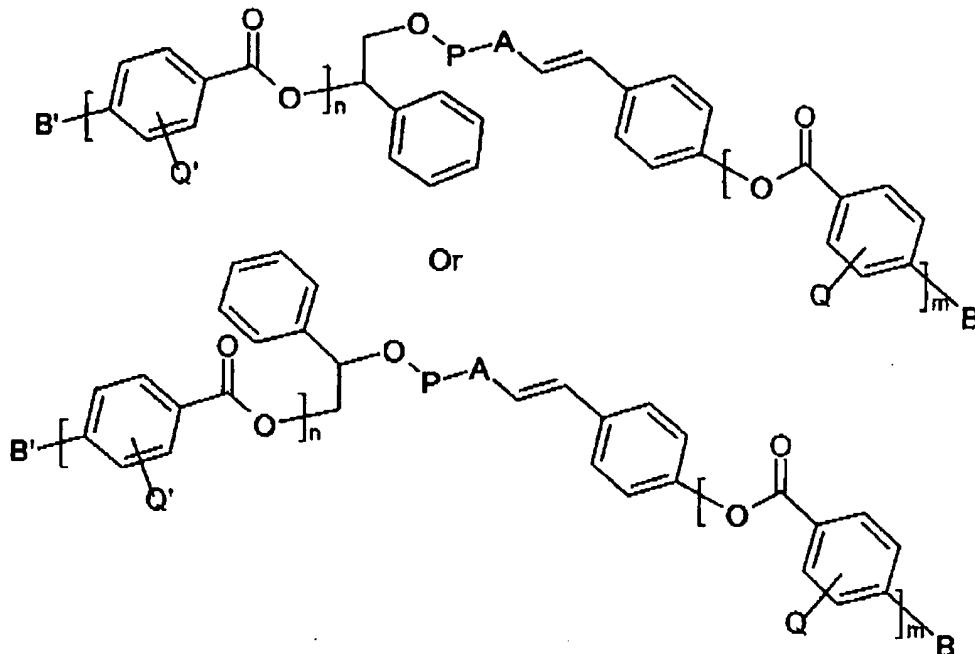
A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Canceled) A phenylethanediol derivative, characterized in that the phenylethanediol derivative comprises at least one photo-convertible group suitable for adjusting the helical twisting power of the phenylethanediol derivative.
2. (Canceled) The phenylethanediol derivative of claim 1 further having at least one polymerizable group.
3. (Canceled) The phenylethanediol derivative of claim 1 wherein the photo-convertible group is a photo-isomerizable group.
4. (Canceled) The phenylethanediol derivative of claim 3 wherein the photo-isomerizable group is an olephinic group.
5. (Canceled) The phenylethanediol derivative of claim 1 wherein the polymerizable group is a (meth)acrylate group.
6. (Currently Amended) The phenylethanediol derivatives of claim 1 A phenylethanediol derivative, characterized in that the phenylethanediol derivative comprises at least one photo-convertible group suitable for adjusting the helical twisting power of the phenylethanediol derivative, wherein the phenylethanediol has the formula

Appl. No. 10/519,604  
 Amendment and/or Response  
 Reply to Office Action of September 14, 2006

Page 3 of 6



wherein

A stands for a bond or a p-phenylene group;

B and B' are independently  $(O)_p-C_6H_{2p}-O-CO-CR'=CH_2$ ,  $\alpha$  being 2-12,  $p$  being 0 or 1, and R' being H or  $CH_3$ ;

P stands for a  $CH_2$  or a  $C=O$  group;

Q and Q' are independently selected from H, C1-C3 alkyl, C1-C3 alkoxy, halogen, and CN;

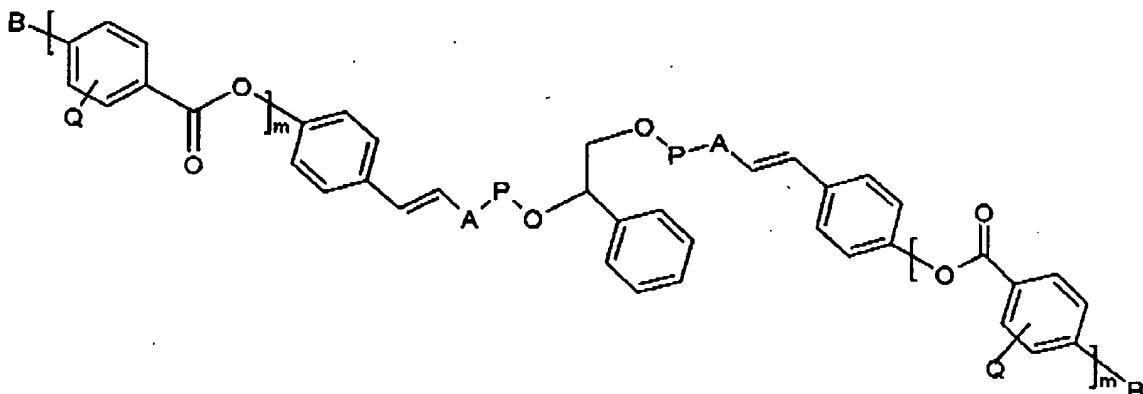
n is an integer from 1 to 3; and

m is an integer from 0 to 2.

7. (Currently Amended) The phenylethanedioyl derivative of claim 1 A phenylethanedioyl derivative, characterized in that the phenylethanedioyl derivative comprises at least one photo-convertible group suitable for adjusting the helical twisting power of the phenylethanedioyl derivative, wherein the phenylethanedioyl has the formula

Appl. No. 10/519,604  
 Amendment and/or Response  
 Reply to Office Action of September 14, 2006

Page 4 of 6



wherein

A stands for a bond or a p-phenylene group;

B is  $(O)_p-C_6H_{2p}-O-CO-CR'=CH_2$ ,  $\alpha$  being 2-12, p is 1, and R' being H or  $CH_3$ ;

P stands for a  $CH_2$  or a  $C=O$  group;

Q is selected from H, C1-C3 alkyl, C1-C3 alkoxy, halogen, and CN; and

m is an integer from 0 to 2.

8. (Currently Amended) A method for the preparation of the phenylethanediol derivative of claim 4 6 by the steps of a) synthesizing a 2-hydroxy ether-protected phenylethanediol, b) followed by etherification or esterification of the 1-hydroxy group of the 2-hydroxy ether-protected phenylethanediol with an alcohol (or derivative thereof) or acid, respectively, optionally comprising polymerizable and/or photo-convertible groups, c) then cleaving the ether-protective group to obtain a phenylethanediol derivative with a free 2-hydroxy group, and optionally d) esterification of the free 2-hydroxy group with an acid which optionally comprises one or more polymerizable and/or photo-convertible groups.

9. (Currently Amended) A cholesteric composition comprising the phenylethanediol derivative of claim 4 6.

Page 5 of 6

Appl. No. 10/519,604  
Amendment and/or Response  
Reply to Office Action of September 14, 2006

10. (Currently Amended) An optical element, ~~preferably an optical color filter,~~ comprising the phenylethanediol derivative of ~~any one of claims 1-7~~ claim 6.

11. (Currently Amended) Use of An optical color filter comprising the phenylethanediol derivative of claim 6 in optical elements.

12. (New) A method for the preparation of the phenylethanediol derivative of claim 7 by the steps of a) synthesizing a 2-hydroxy ether-protected phenylethanediol, b) followed by etherification or esterification of the 1-hydroxy group of the 2-hydroxy ether-protected phenylethanediol with an alcohol (or derivative thereof) or acid, respectively, optionally comprising polymerizable and/or photo-convertible groups, c) then cleaving the ether-protective group to obtain a phenylethanediol derivative with a free 2-hydroxy group, and optionally d) esterification of the free 2-hydroxy group with an acid which optionally comprises one or more polymerizable and/or photo-convertible groups.

13. (New) A cholesteric composition comprising the phenylethanediol derivative of claim 7.

14. (new) An optical element comprising the phenylethanediol derivative of claim 7.

15. (New) An optical color filter comprising the phenylethanediol derivative of claim 7.

Appl. No. 10/519,604  
Amendment and/or Response  
Reply to Office Action of September 14, 2006

Page 5 of 6

10. (Currently Amended) An optical element, ~~preferably an optical color filter,~~ comprising the phenylethanediol derivative of ~~any one of claims 1-7~~ claim 6.

11. (Currently Amended) Use of An optical color filter comprising the phenylethanediol derivative of claim 6 ~~in optical elements~~.

12. (New) A method for the preparation of the phenylethanediol derivative of claim 7 by the steps of a) synthesizing a 2-hydroxy ether-protected phenylethanediol, b) followed by etherification or esterification of the 1-hydroxy group of the 2-hydroxy ether-protected phenylethanediol with an alcohol (or derivative thereof) or acid, respectively, optionally comprising polymerizable and/or photo-convertible groups, c) then cleaving the ether-protective group to obtain a phenylethanediol derivative with a free 2-hydroxy group, and optionally d) esterification of the free 2-hydroxy group with an acid which optionally comprises one or more polymerizable and/or photo-convertible groups.

13. (New) A cholesteric composition comprising the phenylethanediol derivative of claim 7.

14. (new) An optical element comprising the phenylethanediol derivative of claim 7.

15. (New) An optical filter comprising the phenylethanediol derivative of claim 7.